RMR – draft-ietf-mpls-rmr-04
IETF 94

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POINTS TO PONDER

1. Should RMR LSPs be full rings?
2. The issue of “half-rings”
3. What else should be addressed?

RMR LSPS

RMR LSPs, as defined, are ring LSPs – they start and end on the same node

- This is a (non-trivial) implementation challenge
- In both LDP and RSVP-TE, this requires defeating the checks that the LSP doesn't form a loop (!)

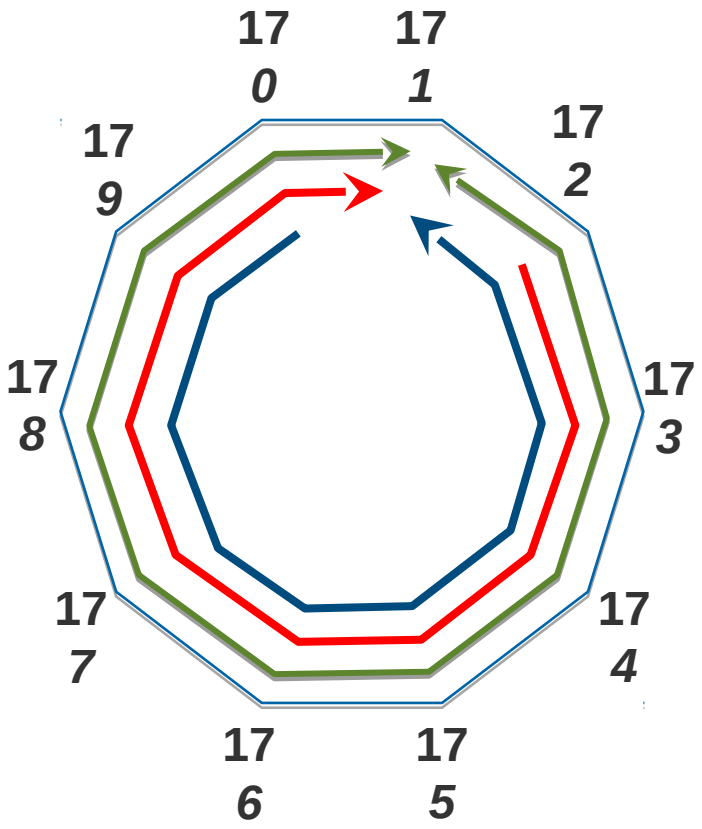
However, from an aesthetic point of view, this is clean

- From an implementation point of view, this is easier (once you've gotten past the "this is a loop" check)

So, our inclination is to keep it this way

- Does the WG agree? (Speak now, or forever hold your tongue!)

A FULL RING LSP vs. A PAIR OF ALMOST RING LSPS

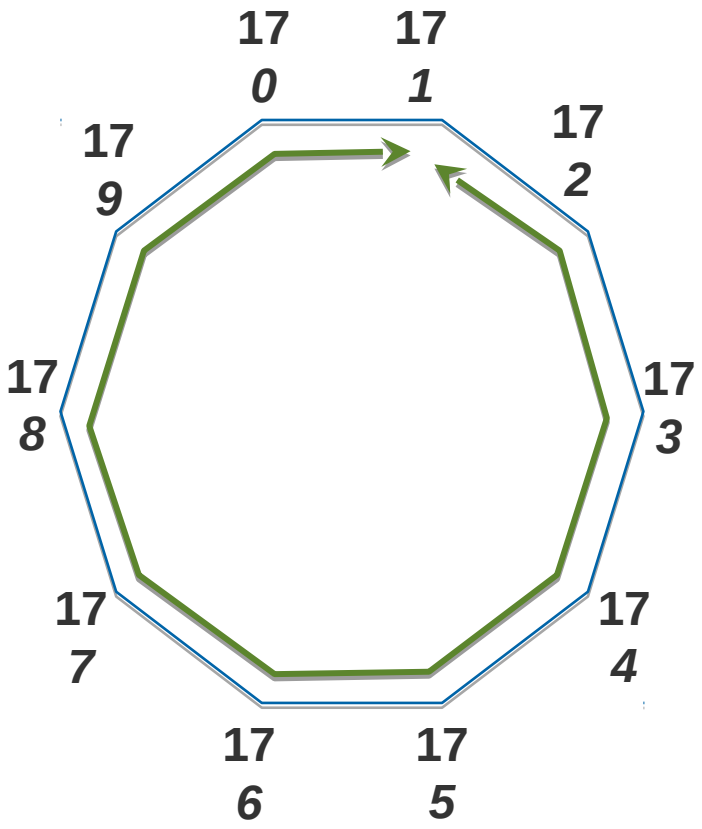


The green LSP is the current proposal. It's a full ring LSP, starting and ending on node 1.

The red LSP is an LSP that egresses on node 1, but starts on node 2
In conjunction with the blue LSP starting on node 0 and ending on node 1, these form the counter-rotating LSP pair that is the ring LSP egressing on node 1.

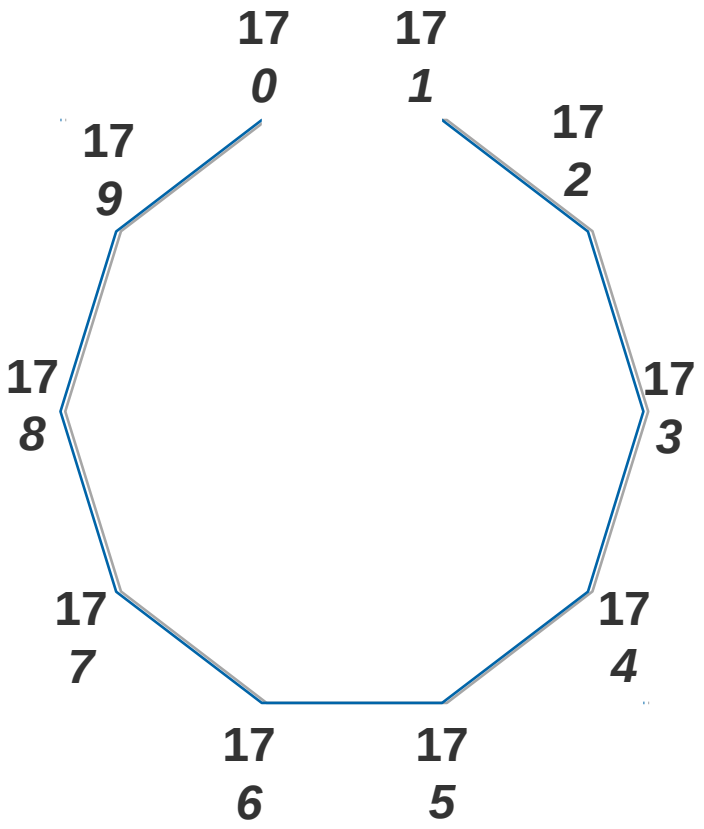
To build this LSP pair requires a fair amount of signaling between node 1 and node 2, and node 1 and node 0. This introduces a fair amount of code complexity

ADVANTAGES OF A FULL RING LSP



A full ring LSP has the further advantage of simple end-to-end OAM: node 1 periodically sends an LSP ping message to itself. As long as it receives these messages, it's happy – the end-to-end LSP is working.

HALF RINGS



What if the ring is not complete?
Some SPs prefer not to have a link from node 0 to node 1

(It is hard to see how this achieves a ring with protection … what if the link between node 3 and node 4 breaks?)

Nonetheless, this is a possible scenario

We are considering a few solutions
Suggestions are welcome!

WHAT ELSE SHOULD BE ADDRESSED?

Our deliberations have been quite far-ranging

If you have thought of any other scenarios, or other issues not considered heretofore, please contact the authors or bring it to the list

- Barring any such considerations, we will propose a WG LC at the next IETF